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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

EL HADY, NABIL M

ART UNIT PAPER NUMBER

2152

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/816,132

Applicant(s)

YOSHIDA ET AL.

Examiner

Nabil M. El-Hady

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,14-16,18-23,34 and 35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,14-16,18-23,34 and 35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/2/2006 has been entered.

2. Claims 1-3, 14-16, 18-23, and 34-35 are pending in this application.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-3, 14-16, 18-23, and 34-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The following words or phrases are not clearly understood, rendering corresponding claims vague or indefinite:

a) "requesting another server ... and sending electronic mail to the user", claim 1, lines 5-6, and claim 18, lines 7-8. Both, purpose of sending and the content of the electronic mail are unclear. Does the electronic mail send to the user with the requested service delivered directly from the other server device, or the electronic mail is send to the user as a notification to the user to use another service device to satisfy his/her request.

b) "requesting another server device if it is judged that a load on the server device", claim 1, lines 5-6, and claim 18, lines 7-8. It is unclear if the judgment of the load is done on which of server device. Examiner assumes according to the citation that the judgment of the load is done on the server device and not on the another server device, and the electronic mail is send to the user just because of that.

c) "sending / receiving a process delay notification to the user / by means of the client device", claim 2, line5, and claim 15, lines 4-5, respectively. First, it is unclear what entity is sending the process delay notification, and if sending / receiving a process delay notification is the same as sending /receiving electronic mail. Second, the wording "by means of" in claim 15 is unclear.

d) "processing a service request at head of the queue by the server device", claim 3, line 5. It is unclear which of server devices is processing the service request from the head of the queue. Examiner assumes according to the citation that when the original server device and not the another device is ready (load information is lower), the original server device will process the queued request.

e) " receiving by electronic mail at the client device a result of processing by another server device", claim 14, lines 7-8. First, it is unclear what is being processed, and what is the result of processing, is it the service request being process by another server, and the result is the response of the service request being delivered by another server device. Second, does the electronic mail is being send by the another server device, or the only the processing is done by the another server device. Third, as mentioned before, the content of the electronic mail is

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unclear. Does the electronic mail send to the user with the requested service delivered directly from the another server device, or the electronic mail is send to the user as a notification to the user to use another service device to satisfy his/her request.

f) "if it is judged that the load information of the server device ...receiving by means of the client device a result", claim 16, lines 4-6. It is unclear which of server devices is processing the service request from the head of the queue. Examiner assumes according to the citation that when the original server device and not the another server device is ready (load information is lower), the original server device will process the queued request.

g) "receiving capacity requests from the user devices", "obtaining capacity information of .. information provider", and "sending a result of the processing of the capacity requests", claim 34, lines 3-7. If "capacity information" as defined in the data transmission field refers to the maximum number of binary digits that can be transmitted by the communications channel in one second (Authorotive Dictionary of IEEE Standards Terms, 7th Edition), then, it is not clearly understood what "capacity requests" means. Does it mean requests for the capacity information. It is clearly understood what does the processing of capacity requests mean, and what is a result of the processing of the capacity requests.

B. The following lack antecedent basis:

- a) "the process delay notification", claim 3, line 2, claim 16, line 2.
- b) "service requests", claim 3, line 3, claim 16, line 3, claim 21, line 3.

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3, 14, 16, 18, 19, 22, 23, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over HweeHwa et al. (Load Sharing in Distributed Multimedia-on-Demand Systems), IEEE , v 12, No. 3, May/June 2000, hereinafter "HweeHwa" in view of Patterson (US 2003/0028608).

7. HweeHwa is cited by the applicant in IDS paper.

8. As to claims 1, 14 and 18, HweeHwa discloses the invention substantially as claimed including a service execution method comprising receiving a service request from a user; obtaining load information of a server device corresponding to the service request from a device for managing the load information of the server device (3.1, Centralized versus decentralized models, where load status for servers are reported to a coordinator for a centralized model, or each server has its load status and share it with other servers); and requesting another server device to process the service request (3.1, Centralized versus decentralized models, where decentralized model enables a server to choose which other servers to help out with) and sending electronic mail to the user, if it is judged that a load on the server device included in the load information is higher than a predetermined value (Introduction, page 410, right column, 2nd paragraph).

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9. HweeHwa, obviously, send a response to the service request to the user from alternative servers depending on their respective load information level (Introduction, page 410, right column, 2nd paragraph), which may be interpreted as the load information of the server device is higher than a predetermined value. HweeHwa does not specifically identify electronic mail as the sending vehicle. However, it would have been obvious to one skilled in the art at the time of the invention that any type of delivery of service request may be used including electronic mail. Patterson, for example, utilizes the delivery of content by electronic mail (abstract). It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of HweeHwa and Patterson because Patterson use of electronic mail as a delivery vehicle for content would contribute to the main goal of HweeHwa's disclosure, i.e. minimizing waiting time for the user.

10. As to claims 3 and 16, HweeHwa discloses adding the service request with respect to which the process delay notification is sent, to an end of a queue for holding service requests with respect to which the process delay notification is sent (page 411, left column, 3rd paragraph; and 3.2 GEQ Load Sharing Algorithm); and processing a service request at head of the queue by the server device if it is judged that the load information of the server device obtained from the device for managing the load information is lower than the predetermined value (page 411, left column, 3rd paragraph; and 3.2 GEQ Load Sharing Algorithm). It is inherent in HweeHwa's disclosure the a FIFO queue is being used where the request is added to the end of the queue and is serviced from the head of the queue (minimizing waiting time, C3. performance over Overhead).

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11. As to claim 19, HweeHwa discloses obtaining load information of the other server device from a device for managing the load information of the other server device (3.1, Centralized versus decentralized models, where load status for servers are reported to a coordinator for a centralized model, or each server has its load status and share it with other servers); and determining whether or not a load on the other server device included in the load information of the other server device is higher than the predetermined value (page 412, left column, C2. Sharing without Balancing).

12. As to claim 22, HweeHwa discloses server device and the other server device include respective content storage devices for storing content corresponding to the service request from the user, said content storage devices including means for holding identical content synchronized with each other (Introduction, page 410, right column, 2nd paragraph, where objects are replicated; and Fig. 1).

13. As to claim 23, HweeHwa does not explicitly disclose the content is synchronized by transmitting/receiving a difference in updated content. However, synchronizing contents in different servers is well known in the art including transmitting/receiving a difference in updated content. Official notice is taken that the both the concept and advantages of transmitting / receiving a difference in updated content is well known and expected in the art. It would have been obvious to one skilled in the art at the time of the invention to use such method in synchronizing content in different servers in order to reduce the load on the system during a synchronization process..

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14. As to claim 34, the claim is rejected for the same reasons as claims 1, 14 and 18, above.

In addition, HweeHwa discloses a service execution apparatus connected via a computer network to user devices and at least one information provider, comprising an input-output management device receiving capacity requests from the user devices over the computer network; a server device obtaining capacity information of the at least one information provider to process the capacity requests, processing the capacity requests and sending a result of the processing of the capacity requests by electronic mail to the user devices (C3. Performance over Overhead,, 1st paragraph; and 3.2 GWQ Load Sharing Algorithm).

15. Claims 2, 15, 20, 21, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over HweeHwa in view of Patterson, and further in view of Kraft et al. (US 6,832,239), hereinafter "Kraft".

16. Kraft is cited by the examiner in a previous office action.

17. As to claims 2, 15, and 20, the claims are rejected for the same reasons as claims 1, 14, 18, and 19 above. However, HweeHwa and Patterson do not send a process delay notification to the user if it is judged that a load on the other server device is higher than the predetermined value. Kraft, on the other hand, discloses sending a process delay notification to the user if it is judged that a load on the other server device is higher than the predetermined value (Figure 3C, column 6 lines 39-55, column 7 lines 17-24). It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of HweeHwa, Patterson, and Kraft, because Kraft's notification of delay to the user would enhance the performance of HweeHwa-Patterson system by informing the user of the delay process (Kraft, col. 7, lines 27-30), since

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when the user does not have positive information regarding the request status, he/she may infer that the delay in performing the download is at fault due to some computer or communication resource (Kraft, col. 2, lines 2-6). Slow service request and the lack of information for the user may lead to increase in user anxiety, and dissatisfaction with the Internet experience (Kraft, col. 2, lines 6-9).

18. As to claim 21, HweeHwa discloses a queue for holding service requests with respect to which the process delay notification is sent, and queue creating means for adding to the queue the service request with respect to which the process delay notification is sent (page 411, left column, 3rd paragraph; and 3.2 GEQ Load Sharing Algorithm).

19. As to claim 35, the claim is rejected for the same reasons as claims 1, 14, 18, 24, and 34 above. In addition, HweeHwa, Patterson, and Kraft, disclose server device automatically sends an electronic mail (Patterson, abstract) process wait notice (Kraft, Figure 3C, column 6 lines 39-55, column 7 lines 17-24) to each affected user device upon determination that the at least one information provider has a capacity to process the capacity requests smaller than a preselected value (HweeHwa, page 412, left column, 4th paragraph, multimedia system should only direct a job to a remote server if the local host is already operating at full capacity).

20. Applicant's arguments with respect to claims 1-3, 14-16, 18-23, and 34-35 have been considered but are moot in view of the new ground(s) of rejection.

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21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nabil M. El-Hady whose telephone number is (571) 272-3963. The examiner can normally be reached on 9:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

March 17, 2006

A handwritten signature in black ink, appearing to read 'N. El-Hady', with a long, sweeping diagonal line extending from the bottom right of the signature.

Nabil El-Hady, Ph.D., M.B.A.
Primary Patent Examiner
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